FILE 'CAPLUS, MEDLINE, BIOSIS, CA' ENTERED AT 12:10:04 ON 28 MAR 2002

L1	263549	S CALIBRAT?
L2	857938	S ANALYTE# OR LIGAND#
L3	1535183	S SOLID (W) SUPPORT OR SUBSTRATE
L4	812891	S DEVICE
L5	631601	S SENSOR# OR BIOSENSOR#
L6	1445	S L1 (S) L3
L7	72	S L2 AND L6
L8	5	S L7 AND L4
L9	3	DUPLICATE REM L8 (2 DUPLICATES REMOVED)
L10	18	S L5 AND L7
L11	13	DUPLICATE REM L10 (5 DUPLICATES REMOVED)
L12	4012267	S REGION# OR ZONE#
L13	18212	S L1 AND L12
L14	5763	S L1 (S) L12
L15	109	S L3 AND L14
L16	6	S L4 AND L15
L17	3	DUPLICATE REM L16 (3 DUPLICATES REMOVED)

L17 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 2

TI Optical immunoassay systems based upon evanescent wave interactions

AB Immunoassays based upon evanescent wave interactions are finding increased biosensing application. In these devices, the evanescent tail assocd. with total internal reflection of an incident beam at the **substrate**/soln. interface provides sensitivity for surface-bound proteins over bulk mols., allowing homogeneous assays and real-time measurement of binding dynamics. Among such systems are surface plasmon resonance sensors and a resonant mirror **device**. Several research groups are also developing fluorescent fiberoptic or planar waveguide sensors for biomedical applications. We describe a second-generation planar waveguide fluoroimmunoassay system being developed in our lab. which uses a molded polystyrene sensor. The 633-nm beam from a laser diode is focused into the 500 .mu.m-thick planar waveguide by an integral lens. Antibodies to the desired analyte (hCG) are immobilized on the waveguide surface and fluorescence from bound analyte/tracer antibodies in a sandwich format is imaged onto the detector. The geometry of the waveguide allows several **zones** to be detected, providing the capability for on-sensor **calibration**. This sensor has shown picomolar sensitivity for the detection of hCG.

SO Proc. SPIE-Int. Soc. Opt. Eng. (1996), 2680(Ultrasensitive Biochemical Diagnostics), 58-67
CODEN: PSISDG; ISSN: 0277-786X

AU Christensen, Douglas A.; Herron, James N.

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments
1	BRS	L1	2072	(calibrat$ and (ligand$ or analyte$)) and (sensor or biosensor)	USPAT; US-PGPUB; EPO; DERWENT	2002/03/28 11:24	
2	BRS	L2	1298	1 and region$	USPAT; US-PGPUB; EPO; DERWENT	2002/03/28 11:25	
3	BRS	L3	1018	2 and flow$	USPAT; US-PGPUB; EPO; DERWENT	2002/03/28 11:26	
4	BRS	L4	129242	algorithm	USPAT; US-PGPUB; EPO; DERWENT	2002/03/28 11:26	
5	BRS	L5	329	3 and 4	USPAT; US-PGPUB; EPO; DERWENT	2002/03/28 11:27	
6	BRS	L6	113921	antibod$	USPAT; US-PGPUB; EPO; DERWENT	2002/03/28 11:27	

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments
7	BRS	L7	157	5 and 6	USPAT; US-PGPUB; EPO; DERWENT	2002/03/28 11:27	
8	BRS	L8	97401	capillary	USPAT; US-PGPUB; EPO; DERWENT	2002/03/28 11:28	
9	BRS	L9	81	7 and 8	USPAT; US-PGPUB; EPO; DERWENT	2002/03/28 11:28	
10	BRS	L10	23335	solid adj support	USPAT; US-PGPUB; EPO; DERWENT	2002/03/28 11:29	
11	BRS	L11	54	9 and 10	USPAT; US-PGPUB; EPO; DERWENT	2002/03/28 11:29	

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments
1	BRS	L1	5095	calibrator$	USPAT; US-PGPUB; EPO; DERWENT	2002/03/28 10:48	
2	BRS	L2	1011236	(solid adj support) or substrate	USPAT; US-PGPUB; EPO; DERWENT	2002/03/28 10:50	
3	BRS	L3	732653	analyte$ or sample$	USPAT; US-PGPUB; EPO; DERWENT	2002/03/28 10:52	
4	BRS	L4	2691585	standard$ or reference$	USPAT; US-PGPUB; EPO; DERWENT	2002/03/28 10:54	
5	BRS	L5	180	1 same 2	USPAT; US-PGPUB; EPO; DERWENT	2002/03/28 10:54	
6	BRS	L6	2100	1 and 3	USPAT; US-PGPUB; EPO; DERWENT	2002/03/28 10:54	

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments
7	BRS	L7	158	5 and 3	USPAT; US-PGPUB; EPO; DERWENT	2002/03/28 10:54	
8	BRS	L8	149	4 and 7	USPAT; US-PGPUB; EPO; DERWENT	2002/03/28 10:55	
9	BRS	L9	749447	matrix or array	USPAT; US-PGPUB; EPO; DERWENT	2002/03/28 10:57	
10	BRS	L10	97	8 and 9	USPAT; US-PGPUB; EPO; DERWENT	2002/03/28 10:58	
11	BRS	L11	324533	label$ or marker$	USPAT; US-PGPUB; EPO; DERWENT	2002/03/28 11:01	
12	BRS	L12	73	10 and 11	USPAT; US-PGPUB; EPO; DERWENT	2002/03/28 11:01	